

DART AEROSPACE LTD	Work Order:	24149
Description: Wearshoe	Part Number:	D2746
Drawing: D2746 Rev. <i>B C</i>	Qty:	50
		Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller Dwg not required	<i>U</i>	25-09-02	50
2	PG	Issue P/O: <i>2008582</i> Email or ship DXF file to vendor Laser Cut per Dwg D2746 flat pattern D2746. Material release note required	<i>U</i>	25-09-02	50
3	RG	Receive and Inspect for transit damage Ensure the material note is attached	<i>CZ</i>	25-09-20	50
4	QC6	Inspect dimensions per template D2746T1	<i>U</i>	25-11-15	
5	GB	Deburr if necessary	<i>N/A</i>		
6	GB	Form on CNC Brake as per Dwg D2746 using Jigs DT8261 and DT8326	<i>SB</i>	05/11/15	49
7	GB	Form joggle on Punch as per Dwg D2746 using Jig DT8158 Identify as D2746	<i>SB</i>	05/11/15	49
8	QC5	Inspect work to Step 7	<i>U</i>	25-12-01	49
9	FP	Powder Coat Grey RAL-7012 (Ref. 4.3.5.5) per QSI 005 4.3	<i>FC</i>	05-12-20	49
10	QC3	Inspect Powder Coat	<i>MM</i>	06-01-16	49
11	FP	Identify and Stock	<i>MM</i>	06-01-16	49
12	AC	Cost / part:	<i>SMC</i>	06-01-17	49
	DC	Close W/O Inspect Level 21	<i>Q</i>	06/01/17	49

	Date	Change	Revised By	Approved
A	98.09.10	New Issue	DS/CP	
B	99.02.24	Added Qty Column, Jigs	DM	
C	00.11.01	Removed P/O for Powder Coat – in house process	EC	
D	02.10.24	Re-format	KJ <i>RF</i>	<i>sh</i>

RELEASED
02/10/30 *RF*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector
05-11-15	4	Took 1 for new template to inspect to Rev.C. dims are the same but the holes are now square instead of oval.		05-11-15	1		 05-11-15

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ NCR: Yes ☒ No ☐ DQA: Date: 06/01/17

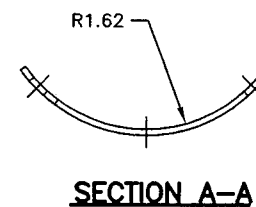
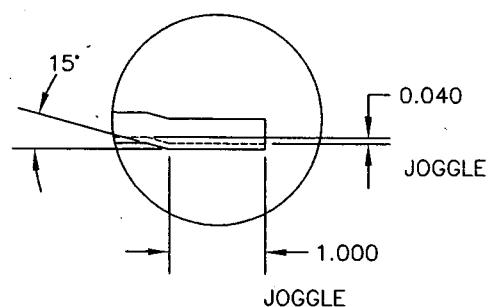
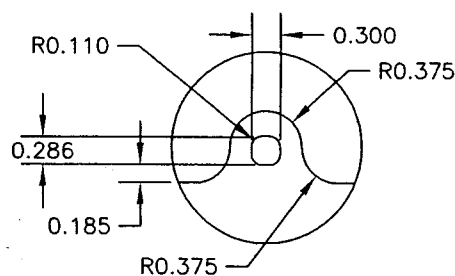
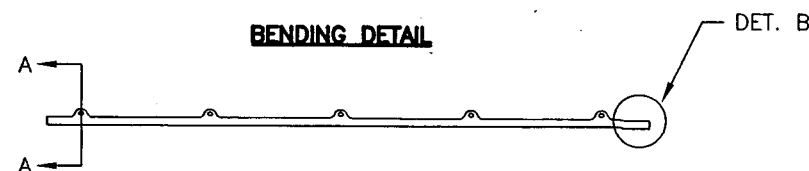
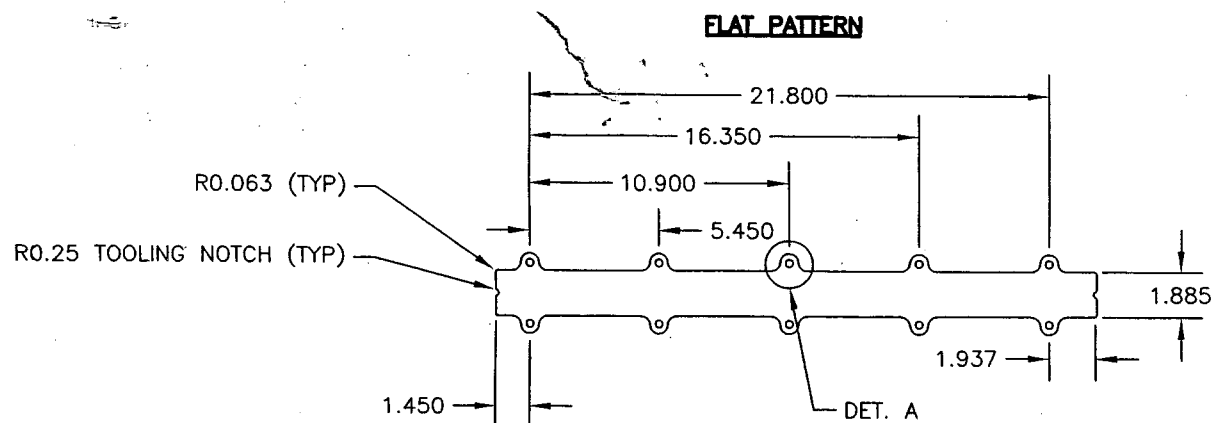
NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____



PRELIMINARY ISSUE

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	REV. C
CHECKED	APPROVED	DRAWING NO. D2746	SHEET 1 OF 1
DATE	TITLE	WEARSHOE	SCALE
05.08.17			1:8
A	98.04.16	NEW ISSUE	
B	98.08.18	RE-DESIGN	
C	05.08.17	ENLARGE SLOTS	



NOTES

MATERIAL: AISI 1010-1025 OR ASTM A36/A366 SERIES STEEL
20 GAUGE (0.040 THICK)

FINISH: POWDER COAT GREY (REF. 4.3.5.5) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

NOTE: THIS PART CAN BE MADE BY MODIFYING D2656-21

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Sep 01, 2005
10:48 am

Work Order No : 0024149
Project Name : D2746
Project For : WK537
Work Order Type : Main
Main WO Number :
House Part Number : D2746
Description : Wearshoe
Manufactured : Yes
Amount Req'd : 50
Amount Done : 0
Start Date : 08-29-05
Est Finish Date : 09-16-05
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Mark Up : 0.000%
Actual Mark Up : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00



New Zealand Steel Limited
 Glenbrook, South Auckland
 Postal: Private Bag 92121, Auckland, New Zealand
 Telephones: (09) 375 8899 / 375 8111 Auckland
 (09) 235 8089 / 235 3535 Waiuku
 Fax: (09) 375 8859

TEST CERTIFICATE

Ref: 5005/21329

CUSTOMER		Wilkison		P41007PI002		SPECIFICATION												ASTMA1008 CS Type A		CERTIFICATE No		TC107796						
CUSTOMER O/N		90-21N-288		PRODUCT												CRA WIDE COIL		PAGE		1 of 1								
MILL O/N		453665		DIMENSIONS												0.033" x 48" x Coil		DATE		31 March 2005								
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT															MECHANICAL TESTS (TEST SPECIFICATION - ASTMA370)											
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ()	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH				
		x100			x1000												x10000		x100		180°				G.L.=	HRB	()	(feet)
R9-455932-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				41		2621				
R9-455933-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				41		2723				
R9-455934-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				50		2546				
R9-455935-00	640077	5	TR	20	10	16	14	17	18	1	6	1	1					Good				50		2789				

YIELD (A)=0.2% PROOF STRESS (B)=LOWER YIELD STRESS		GAUGE LENGTH (G.L.) (A)=200mm (C)=80mm (E)=2" (B)=50mm (D)=5.65 So (F)=8"			PLASTIC STRAIN RATIO (r) (A)=r0 (C)=r45 (B)=r90 (D)=(r0+r90+2r45) / 4			IMPACT TEST (A)=10mm x 10mm (C)=5mm x 5mm (B)=7.5mm x 10mm (D)=2.5mm x 10mm (E)=5mm x 10mm			CARBON EQUIVALENT VALUE (CE) (A)=C+Mn/6 (C)=C+Mn/8+Si/24 (B)=C+Mn/8+(Cr+V+Mo)/5+(Cu+Ni)/15 (D)=		
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WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED
 WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Satish Misra*
 QC METALLURGIST

20 GA CRMS



Date: Thursday, 11/17/2005 12:09:55 PM
 User: Linda Lacelle

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	WEARSHOE
Job Number :	24149		
Estimate Number :	10330		
P.O. Number :		Part Number :	D2746
This Issue :	11/17/2005	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	D2746 REV B
First Issue :	/ /	Project Number :	
Previous Run :		Drawing Revision :	B
Written By :		Material :	
Checked & Approved By :		Due Date :	11/24/2005
Comment :	Est: D 02.10.24 Re-format KJ	Qty:	50
		Um:	Each

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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**Comment:** PURCHASING

Issue P/O: _____
 Email or ship DXF file to vendor
 Laser Cut per Dwg D2746 flat pattern D2746.
 Material release note required

2.0	D2746F	Wearshoe
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3.0	PACKAGING 1	PACKAGING RESOURCE #1
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**Comment:** PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage
 Ensure material release note is attached

4.0	QC6	DIMENSIONAL CHECK
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**Comment:** DIMENSIONAL CHECK

Inspect dimensions per template D2746T1

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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**Comment:** SMALL & MEDIUM FAB RESOURCE 1

Deburr if necessary.

6.0	BRAKE NC	NC BRAKE
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**Comment:** NC BRAKE

1-Form on CNC Brake as per Dwg D2746 using Jigs DT8261 and DT8326
 2-Form joggle on Punch as per Dwg D2746 using Jig DT8158 Identify as D2746

Date: Thursday, 11/17/2005 12:09:55 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARSHOE

Job Number: 24149

Part Number: D2746

Job Number:



Seq. #:	Machine Or Operation:	Description :
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7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

11.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion



Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 08, 2005
11:05 am

Work Order No : 0024149
Project Name : D2746
Project For : WK537
Work Order Type : Main
Main WO Number :
House Part Number : D2746
Description : Wearshoe
Manufactured : Yes
Amount Req'd : 50
Amount Done : 0
Start Date : 08-29-05
Est Finish Date : 09-16-05
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Margin : 0.000%
Actual Margin : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	357.50	100.00	0.00	357.50
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	357.50	100.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	357.50			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	(-357.50)